



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Huang et al

Art Unit : 2123

Serial No.: 09/635,116

Examiner : Frejd, R.

Filed : 08/09/2000

Title : METHOD FOR SIMULATING DRILLING OF ROLLER CONE BITS AND ITS  
APPLICATION TO ROLLER CONE BIT DESIGN AND PERFORMANCE

Assistant Commissioner for Patents  
Washington, DC 20231

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Technology Center 2100

In response to the Office Action dated July 22, 2002, please amend the application as follows and reconsider the application in view of the included remarks.

IN THE CLAIMS:

Please cancel claim 22 without prejudice or disclaimer.

Please amend the claims as indicated below. A marked-up version of the claims, in accordance with 37 C.F.R. §1.121(c)(1)(ii), is included in Appendix A.

~~22 23.~~ (Amended) A method for optimizing a design of a roller cone drill bit, comprising:  
simulating the bit drilling through a selected earth formation;  
adjusting at least one design parameter of the bit, the at least one design parameter  
comprising a parameter selected from the group of a number of cutting elements  
on each one of a plurality of roller cones, cutting element type, and a number of  
rows of cutting elements on each one of the plurality of roller cones;  
repeating the simulating the bit drilling; and  
repeating the adjusting and simulating until an optimized design is determined.

~~24.~~ (Amended) A method for optimizing a design of a roller cone drill bit, comprising:  
simulating the bit drilling through a selected earth formation;  
adjusting at least one design parameter of the bit;

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